

MANUFACTURE OF SILICON THIN FILM TRANSISTOR

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Abstract

PURPOSE: To make possible the formation of a silicon film having a good crystallizability on an amorphous substrate consisting of glass or the like at a low temperature and to make it possible to realize easily a TFT having a high carrier mobility.

CONSTITUTION: A gate electrode 2 with at least the surface consisting of an ITO film is formed on a transparent insulative substrate 1 consisting of glass or the like and thereafter, a gate insulating film 3, which covers the electrode 2 and at the same time, is made to expose its Al surface and consists of an aluminium oxide film orientated to the face (012), is formed applying an atomic layer deposition method and a operating semiconductor layer 4 consisting of a silicon film having a good crystallizability is formed on the Al surface of the film 3 at a low temperature in a degree that the substrate 1 consisting of glass or the like is not softened.